FEEDBACK TO IMPROVE CORE CUSTOMER RELATIONSHIPS: A FRAMEWORK TO IMPLEMENT FACE-TO-FACE SURVEYS

Jeff T. Israel Principal SatisFaction Strategies Portland, OR 97229-5017

SUMMARY

The paper documents the approach taken by a silicon materials manufacturer to gather and use customer feedback to help strengthen relationships with core customers. The case study format details survey methods, question areas, and selected results. The paper should help other manufacturers looking to implement or improve their customer survey/feedback processes. In addition, the research findings provide context regarding the nature of customer-supplier partnerships, from the perspective of customers.

KEY WORDS

customer satisfaction, customer-supplier partnerships, face-to-face surveys, performance measurement

INTRODUCTION

Mitsubishi Silicon America (MSA), formerly Siltec Corporation, is a full service supplier of electronic grade silicon wafers to the semiconductor industry. The company manufactures Czochralski-grown prime polished and epitaxial silicon wafers in a variety of sizes and dopants. MSA tailors products to meet the requirements of the customer to allow for maximum performance for the end-user's applications. The company relies on the latest technology and expertise to evaluate the production process to develop and test new product features and capabilities.

The ultimate measure of success at MSA is customer satisfaction. The company is dedicated to delivering exactly what the customer requires, on time, every time. MSA believes in adding value by offering its customers a competitive advantage through service programs, communications, and research into future technology requirements. Their philosophy is to never take customers for granted, but to actively cultivate long-term relationships. MSA's mission statement includes the goal to be the silicon materials supplier of choice to the semiconductor industry.

In total, MSA had about 1200 employees in 1996. Manufacturing facilities are located in Salem, Oregon with sales offices located throughout the U.S. and in the U.K. Mitsubishi Silicon America is part of the Mitsubishi Materials Corporation, operating with an independent board of directors.

A CHRONOLOGY OF INCREASED CUSTOMER FOCUS

MSA has had a solid commitment to customer satisfaction for a long time. MSA's quality policy, customer-focus teams, customer satisfaction index, and a competitive market assessment survey are all evidence of their proactive commitment toward customer focus. However, it was a supplier audit by a major customer that triggered development of a survey to solicit feedback from their core customers.

Since 1989, MSA's quality policy has stressed customer satisfaction and continuous improvement. However, one challenge management faced was to make the policy more meaningful to employees. To do this, MSA needed to both define the nature of customer satisfaction as well as to establish baseline performance levels against which future continuous improvement efforts could be gauged.

Customer-focus teams were introduced in 1992 to build credibility with key customers and execute MSA's marketing and sales strategies. These teams provide a single point of focus for the customer and are expected to resolve all customer issues. The teams are cross functional, composed of an Account Manager, a Customer Service Representative, a Field Engineer and one or more Plant Advocates.

Around 1992, MSA conducted a high level competitive assessment survey among existing customers. The survey determined MSA's perceived position relative to other major silicon suppliers and identified MSA's competencies that could be developed and promoted to strengthen its competitive position in the industry.

About the same time, MSA developed an internal customer satisfaction index based on management's opinions of customers' needs and expectations. The customer satisfaction index was composed of a series of operational measures known internally as the company's "key indicators." The index was modified in 1994 in order to capture data and track performance in areas more directly related to customer satisfaction.

Performance improvements were noted for many of the key indicators within the index. However, in 1995 a key customer questioned MSA's customer satisfaction index during an extensive supplier audit. The auditors asked "How are you verifying that what you are tracking will lead to customer satisfaction?" Since the intent of the index was to represent levels of external customer satisfaction, MSA decided to survey customers to verify that index elements accurately reflected the requirements of core customers.

OVERVIEW OF SURVEY METHODOLOGY

Compared to consumer markets, using customer surveys in business-to-business settings often presents special challenges. Among the most daunting of these is that usually no one single person in the customer's organization is qualified to give feedback on a complete spectrum of product and service performance factors. It was our initial belief that customer stakeholders from different functional areas (purchasing, quality, and engineering) would provide a more balanced perspective on performance and overall levels of customer satisfaction.

In addition to multiple stakeholders, some other issues were identified as relevant in the design of the research methodology for MSA's customer feedback process. The most significant of these included:

- Desire to conduct an in-depth baseline evaluation, using many questions from a number of areas.
- Interest in using the feedback process itself as a means to foster relationship building with customers.

- The target population of core customers was relatively small, focusing on ten customer companies.
- For sampling purposes, "customer" was expanded to include respondents from three functions, including engineering and quality staff, in addition to traditional respondents from purchasing.

Three common customer survey methodologies include mail, telephone, and in-person interviews. These methods are evaluated in Table 1, according to the criteria listed.

TABLE 1: COMPARISON OF SURVEY METHODS				
Method Consideration	Mail	Telephone	In-Person	
Ideal survey length	5 - 15 minutes	5 - 20 minutes	30 - 120 minutes	
Respondent rapport	Little / None	Good	Excellent	
Cost per survey	Least Expensive	Moderate	Most Expensive	
Cost with geographic	N/A	N/A	Significant Efficien-	
clustering			cies Realized	
Qualitative data quality	Poor / Fair	Good	Best	
Ease of internal data	Good	Fair / Poor	Good	
gathering				

Given the stated objectives, the in-person (face-to-face) method of interviewing was chosen to gather feedback from MSA's customers. Some additional details on the specific methods selected follow.

SAMPLING DESIGN

The population of customers was defined as the ten customer organizations expected to have the greatest impact on the future success of MSA. Selection criteria for these core customers included that the accounts were already significantly large, were growing rapidly, or were leaders in their respective industries. While every organization would like to achieve 100% customer satisfaction, conventional wisdom suggests focusing efforts on the 20% of customers that account for 80% of success. This is because the needs and expectations of core customers often differ from those of ancillary customers. Further, assuming service resources are scarce, resources should be allocated to fulfill core customer needs first.

The list of specific contacts for these customers were obtained from each of the respective customerfocus teams. The sampling plan provided that a minimum of three interviews would be conducted within each customer organization, including at least one interview each with purchasing, engineering and quality stakeholders. Additional interviews were to be scheduled with core customers using MSA materials at multiple plant locations.

QUESTIONNAIRE DEVELOPMENT

A draft survey questionnaire was developed following a discussion of MSA's needs. This draft was reviewed by MSA and question objectives were subsequently clarified in order to finalize the survey. The complete scope of the question areas included, as well as the key objectives for asking the questions are summarized in Table 2.

TABLE 2: QUESTION AREAS & OBJECTIVES			
Question Areas	Objectives		
Customer Requirements	Have customers articulate (their language) their require-		
	ments, re: product; service; quality; and other performance		
	dimensions		
Satisfaction & Performance Ratings	Gather performance data for outcome and process measures,		
	as well as qualitative improvement opportunities		
Customer Satisfaction Index	Evaluate MSA's internal measures in terms of importance to		
Validation	customers and clarify expectations		
Partnership Qualifications	Define from customer's perspective the key elements of cus-		
	tomer-supplier partnerships		
Product Specifications &	Evaluate importance of various product features, as well as		
Importance	future specifications		
Customer-Supplier Trends	Identify customer-driven trends in customer-supplier		
	relationships		
Ordering/Purchasing Trends	Identify customer-driven trends in ordering and purchasing		
Electronic Data Interchange	Determine current and desired use of EDI applications		
Adoption			

The final survey was designed to accommodate asking the right questions of the right stakeholders. It was deemed appropriate that quality stakeholders would be asked all survey questions. However, purchasing and engineering stakeholders were only to be asked the questions applying to their functions.

CONDUCTING THE FACE-TO-FACE INTERVIEWS

All appointment setting and interviewing was conducted by MSA staff, including the Senior VP of Quality Assurance and Market Research Manager. Interview appointments were arranged in advance by phone with the designated purchasing, engineering and quality stakeholders from each customer organization. This design feature held down data collection travel costs by allowing all interviews conducted at the customer's site to be completed on the same day or on consecutive days.

Prior to the start of the interviews, some basic training on how to conduct interviews was completed. Special instruction was given on probing and clarifying techniques when asking open-ended questions. The first three surveys were conducted jointly by the two MSA interviewers to promote learning and consistency. After these initial surveys were completed, a debriefing session was held to insure high data quality and to clarify interviewer questions on the use of the survey instruments.

ANALYSIS AND REPORTING

The interviews were completed over the course of several months, according to interviewer and customer schedules. During the interviewing phase, completed survey data was entered into a spreadsheet, which was in turn imported into a survey software analysis package. The results were compiled at the respondent, customer company and overall levels. These preliminary results were disseminated to:

- Customer-Focus Teams
- Account Managers
- Directors of the Company
- President and Executives

These initial reports provided all qualitative results in their uncoded, verbatim comment form. The company level and individual respondent summaries were highly useful to the customer-focus teams and account managers, as a few tactical opportunities to improve specific relationships were identified.

The project team found it had generated a tremendous amount of qualitative data and struggled initially to make good use of it on a strategic level. Some of the data from related questions were grouped together and affinity diagrams were created to identify emergent themes.

KEY FINDINGS

Some selected results of the customer survey findings are reported here, to the extent that they provide insights to other organizations (aside from silicon material suppliers) seeking to use customer surveys to improve their relationships with their customers. Of specific interest in the context of this paper are the results from selected questions relating to: *Partnership Qualifications* and *Satisfaction and Performance Ratings*.

Key open-ended questions from the "Partnership Qualifications" group included:

- In your view, what is a supplier partnership?
- As a customer, what benefits would you expect from a partnership-type relationship with your suppliers?
- Thinking of your best suppliers, what characteristics distinguish them as the best?

Customers defined supplier partnerships using several key themes. Nearly half talked of shared risks and rewards. Two-fifths spoke to the nature of the relationship, perhaps mentioning marriage or virtual mergers, where mutual give and take was assumed. Honesty and openness was a theme mentioned by one-third. Specific conditions were listed by one-fourth. One-fifth mentioned extending the factory to the vendor.

As to the benefits expected from a supplier partnership, respondent comments tended to vary between the purchasing and quality functions. The results to this open-end question are summarized in Table 3.

Expected Benefits	Total	Purchasing	Quality
Guaranteed Supply	48%	42%	56%
Attain Desired Synergies	48%	83%	
Higher Quality	48%	8%	100%
Improved Costs/Pricing	29%	33%	22%
Better Communications	29%	25%	33%
Shared Fate/Benefit	24%	42%	
Better Inventory Management	10%	17%	
Improved Service	10%		22%

While purchasing and quality stakeholders have similar expectations that a supplier partnership means a guaranteed supply, the other expected benefits varied significantly by function. Purchasing stakeholders were more likely to expect synergy and shared benefits to result from a supplier partnership, while quality stakeholders expected quality to improve. Quality stakeholders also expected better communications, pricing considerations, and improved service.

When purchasing and quality respondents described the characteristics of their best suppliers, they tended to use different language (see Table 4).

TABLE 4: CHARACTERISTICS OF BEST SUPPLIERS					
Characteristics	Total	Purchasing	Quality		
High Product Quality	52%	17%	100%		
Responsive & Flexible Service	48%	25%	67%		
Good Communications	29%	25%	33%		
Extra Mile/Can-Do Attitude	19%	33%			
Honor Delivery Commitments	19%	8%	33%		
Problem-Solving Support	19%	33%			
Better Inventory Management/Supplier	14%	25%			
Strategy					
Good Quality Systems	14%		33%		

Purchasing stakeholders were more likely to characterize their best suppliers as: having an extra mile, or can-do attitude; providing problem-solving support; offering responsive and flexible service; and, fostering better inventory management or adoption of supplier strategy. Quality stakeholders were more likely to characterize their best suppliers as: having high product quality; offering responsive and flexible service; honoring delivery commitments, and having good quality systems.

Key questions from the "Satisfaction and Performance Ratings" group included:

- How satisfied are you with MSA's performance in being easy to do business with?
- How satisfied are you with MSA on an overall level?
- How would you rate MSA's performance relative to other suppliers?
- Would you recommend MSA to other companies considering us as a supplier?
- In which performance areas should we focus on to better meet your needs and requirements?

The first four questions above represent key customer satisfaction outcomes, in that they measure satisfaction at an overall, rather than process, level. In the analysis, scores from these questions were combined at both the respondent and company levels to identify individual relationships at risk.

In addition, targeted performance levels were established for each outcome measure. For "ease of doing business" and "overall satisfaction," targeted ratings included completely and somewhat satisfied (either a 5 or 4 on a five point scale). For "MSA relative to other suppliers," targeted ratings included way above or somewhat above other suppliers (again either a 5 or a 4). For "would you recommend," an affirmative response was targeted. The percentages of respondents giving ratings at the targeted levels are summarized in Table 5, both at the aggregate and functional levels.

Each of percentages in the overall column provide a baseline level against which future performance

TABLE 5: RATINGS MEETING TARGETED PERFORMANCE LEVELS				
Outcome Measure	Overall	Quality	Purchasing	Engineering
Overall Satisfaction	87%	89%	92%	80%
Ease of Doing Business	83%	100%	67%	89%
MSA vs. Other Suppliers	48%	33%	42%	70%
Willingness to Recommend	100%	100%	100%	100%

can be assessed. At first glance it appears that MSA should focus on improving performance for the measure "MSA vs. Other Suppliers." It should be noted however, that much of the apparent disparity between this and the other outcome metrics is due to differences in question scaling. Scaling differences aside, an improvement in the metric "MSA vs. Other Suppliers" would reflect MSA's success in differentiating itself from other suppliers.

MSA is reviewing customer comments on how they could improve performance for each of the first three metrics. The results in Table 5 suggest that improvement initiatives targeted at the needs of specific functional groups might be the most effective way to influence the overall metric. For example, if MSA identifies the reasons why purchasing customers are less satisfied with "Ease of Doing Business" and implements initiatives to improve performance with this stakeholder segment, improvement in the overall rating would be expected.

In the fourth area, "willingness to recommend," MSA achieved a perfect score (i.e. 100% would recommend MSA to a prospective customer). As no improvement is possible, MSA is developing a new metric that will provide a better predictor of customer loyalty, such as future purchase intentions.

The results for the key areas where customers want performance improvements also vary by function (Table 6). Engineering stakeholders most want improvements in quality and responsiveness of support. Quality stakeholders also want MSA to improve quality, but are more interested in getting the quantities of material requested and receiving more field and/or technical support. Purchasing stakeholders want improvements in responsiveness of support, delivery timeliness/flexibility, receive quantities requested and behave more like a partner.

TABLE 6: TOP PERFORMANCE IMPROVEMENT AREAS				
Improvement Area	Total	Purchasing	Quality	Engineering
Provide Responsive Support	23%	33%		30%
Supply Quantities Requested	23%	25%	44%	
Improve Quality	23%		22%	50%
On-Time Deliveries/Flexibility	16%	25%	11%	10%
Behave as a "Partner"	10%	25%		
New Product Development	10%		22%	10%
More Field/Technical Support	10%		33%	
Risk Management	6%	17%		

CONCLUSION

When it comes to gathering customer satisfaction feedback from core customers in a business-to-business customer-supplier setting, face-to-face surveys have many advantages over mail and telephone surveys. The face-to-face method results in the best qualitative data (open-ended questions), builds customer-supplier rapport and offers the most viable venue for lengthy in-depth interviews. In addition, this feedback process can be developed and then administered internally. Given that core customer populations are generally small, the interviewing resources that must be committed are limited.

While most organizations tend to rely on third party research suppliers to conduct their surveys, there are two main advantages to using internal resources for face-to-face surveys with core customers. First, the organization has the best understanding of the technical details of their business. This translates to better clarification of customer issues. Secondly, the interview process generates time sensitive informa-

tion for building and maintaining customer relationships. When conducted internally, organizations can take tactical advantage by recognizing the value of specific information and responding quickly.

From any supplier's perspective, the ultimate issue in business-to-business customer-supplier relationships is whether the customer, given a choice, will choose to continue to do business in the future. The results of this research show the "customer" does extend beyond the purchasing function and, that in this case study, quality and engineering stakeholders have their own unique expectations of the supplier. As more and more customers move toward sole-sourcing, suppliers need to be increasingly aware of how well they are performing throughout the customer's organization to maintain the customer's satisfaction and loyalty.

MSA continues to pursue its quality policy and intends to draw its employees into future customer satisfaction improvement initiatives. They will continue to measure performance in customer satisfaction internally and externally. The core customer survey will probably be repeated every two years and other customer and market feedback processes will be used as well.

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